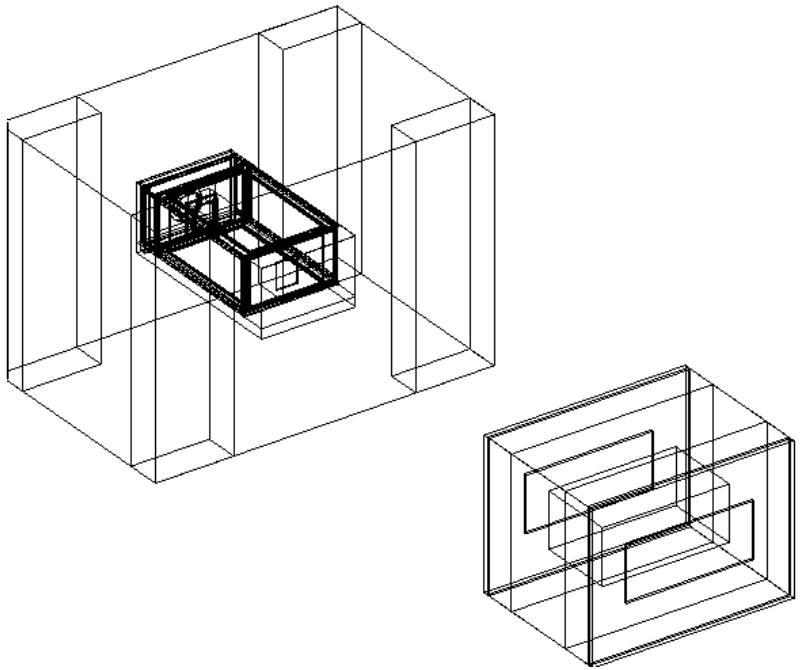
MC907 status

- It’s not ready yet.
- So far, 2 Magnets and a TPC

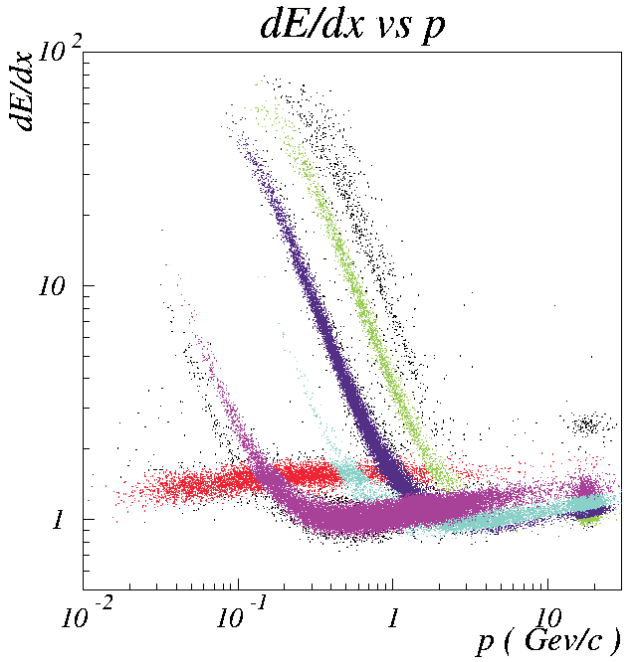


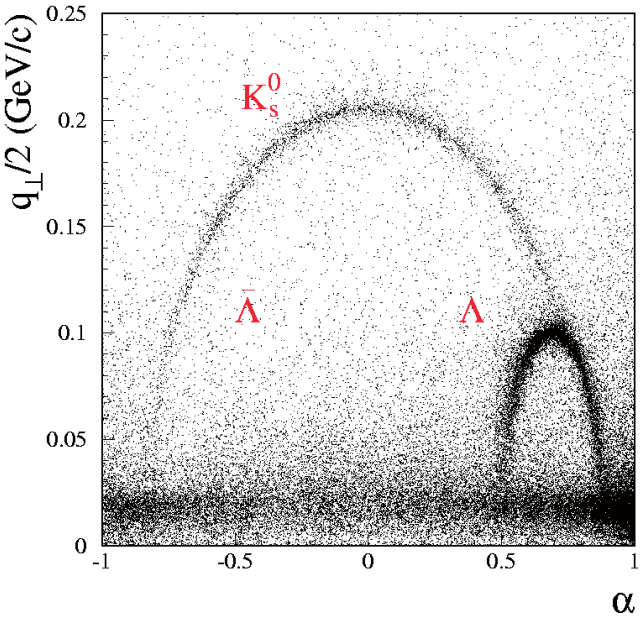
- Next add ckov, rich, …
- Needs a small team of people interested in improving, building, running
- Computing resources are not expected to be a problem

E910 Reconstruction

- It works!

$$\frac{\sigma_p}{p} = 0.01 \cdot \sqrt{\frac{1.043}{\beta^2} + 0.101 p^2}$$





E910 Reconstruction

- e910tas - C++ and reads and writes with TAS tables.
- Tracking starts with the TPC, tas table output, 3-D grid of ADC values
  - 2D cluster finder - connect the dots in x-y per pad-row, adjacent clusters linked by pointer
  - hitfinder starts with clusters, Gamma fit in y, weighted mean in x, multiple peaks per cluster OK
  - helical fit starting with linked clusters
  - swim tracks to find vertex and downstream hits
  - refit with variable curvature (swimmer) and all available track position information
  - *Xihong Yang, Columbia Ph. D. Thesis for more details*

E907 Reconstruction : Tasks

- Decide on Event format (If not TAS tables)

  How long will this *decision* take?

- Decide on Analysis Framework (If not TAS)

  Ditto.

- To extricate E910 tracking code from e910tas, and plug into new framework : 1-2 person months, real time, unless Xihong Yang can be lured away from Wall Street.

- CKOV, TOF, and downstream tracking code can follow suit

- No shortage of work!